

Running Narrative

Factor

Hydrology. Extended drought is a factor of global warming and watershed deterioration.

Climate change. The above will result in winter floods and summer drought.

Local Supply - It should be assumed other states suffering from the above will increase their demands upon the river.

Allocation. As previously noted, it is already an occurrence that desert areas are receiving less water. This will be a factor in land retirement not usually thought of.

Energy costs. Supply may slightly shrink as small hydro dams are removed for fish passage. Demand will increase with population. Groundwater extraction from both lowering tables or recharge areas increases proportional to extraction depth, but, it increases greater with the depth, a prime sq factor.

Drinking Water. EPA standards always increase incrementally but over time the increase will be substantial. Interests between Triant's aqueduct has potential to furnish Sierra water to Urban and Sac Seawage of aqueduct to sq.

sq Discharge. Assume PC and media hysteria to be a probable factor for increase. The Brockovitch Bosom Syndrome.

Environmental Water. Managed wetlands have a potential for water purification as noted later. Native vegetation has PC aspects. Sierra Cult has proposed replanting areas to which endangered Babcock's Beartooth Cactus and triplets with native grasses. Water consumption of course but pack lobbies have clout.

Environmental H₂O. There will always be demand for increased environmental water by flow. activists. Social Protest as social event. Environmental water price will probably compete with development price.

Population profile - It could be stabilized by eliminating income tax exemption after one or two children but hardly politically popular, though better than Enron in the Agueda

" Distribution. Lower land prices, higher water costs will increase Central Valley conversion. Lining for Dollars by counties could be lowered by local level term limits & peer participation being limited & local politicians are developer dependent for campaign contributions.

" Density. Lower in valley areas of course as lot sizes increase relative to coastal cities. The rural/wildland interface is also relatively sparsely spread out. This interface deteriorates the watersheds and decreases statewide water supplies.

Income. Should decrease per capita as lower end of the two tree population increases. This is not only a factor of the population profile mentioned, but also of a deteriorating educational system. Acreage. Will sharply decline as the melanization also creates an incentive for farmers to sell water and the soil salting increases beyond halophytic crop's capacity or tolerance. Perhaps switching crops to peanuts will work - salted in the shell, of course.

crop shifts. This is a segue that permanent crops generally receive water allocations and a higher commodity price.

ag retirement. Will increase not only for current reasons but also as a byproduct of unproductive acreage.

Urban water (use/efficiency) will increase in coastal areas conservation pricing hits its stride. Most water goes to landscaping. The native grasses previously mentioned use one sixth that of exotic crops. The state should demo this in the appropriate landscapes that it owns. 2.) Central Valley ag is opposed to urban efficiency as urban water prices subsidize ag water bills. Eventually new urban dwellers will want their bills lowered.

1970's Efficiency The upside of previously noted probability of ag selling water to urban is that as ag increases its efficiency, it cuts its costs and can also sell its surplus allotment to urban.

Desalination will grow at the current level. As noted in electricity costs it will remain expensive and as an adjunct to power plants, such as nuclear, not likely to happen.

Recycled water. Current reuse plans will probably incorporate the use of wetlands as tertiary treatment and an environmental use.

Water Pricing Will probably be a mix of market and contractual systems. Areas of origin may get the incentive to sell this resource as a matter of equity though it may be seen as a two edged sword.

Water Transfers In addition to the above, I must note that water should be considered a monopoly. There is after all, but one set of faucets in the sink. But, water transfers should increase as previously noted and because Free Market is a great hogwood and will be pushed by those who did such wonders to our energy situation and phone service.

Surface/groundwater Management There will be less than Colby's planned management as it continues to bureaucratically Balkanize. I will later discuss the loss of storage in montane areas as it is not even usually considered.

Groundwater storage. Again watersheds are not considered. A major problem is the Faucet Phallacy which sees water miraculously occurring at areas such as Hood.

Surface Storage Downstream storage is unlikely to occur in construction or permitting. Retrofit of Trinity dam to safely hold a corecover could occur with an increase of over 100-200 ft. Raising of dam heights will bring them back to a capacity decrease

does not have engineer appeal. An opportunity for offstream environmental water storage is being lost as purchase of P.G. & E's Ennaway Ranch is passed up as part of the bailout. This is 18M acres @ the Golo Bypass suitable for offstream storage. Watermax vs Powermax model runs show how surface supplies decrease of water as energy production is concentrated on. This occurs at the conflict between air conditioning and irrigation.

Consequence: Calfed land acquisitions that mimic prior plans - the peripheral ponds will likely hit a legal snag. As noted the interties of state & Federal systems hold promise.

Urban Runoff - If ag applicators did what homeowner applicators do that ends up in runoff they would be prosecuted. Reverse osmosis systems, though expensive would probably be necessary to make runoff useable.

Flood Management - Engineers of DWR & others will continue to do studies and seek structural magic bullets. If the global warming scenario is correct then increased flooding will bring other options than those in the plan to the fore. The Plan shows the engineering orientation but crisis will bring reevaluation. It's the American way.

Recreation This too is an exclusive topic. Recreation opportunities will increase in the Delta if Calfed continues to be successful in its fish restoration. Or is this anadromous return accentuated by ocean water returning to normal temperatures. A serious focus should be given to the National Forests conversion to a park system. This will increase recreational opportunities, but for those in our society who can afford admission. Parks are for passive recreation and do not have a multiple use mandate. Water supplies are already decreasing as watersheds deteriorate and siltation increases from practices such as "road decommissioning" in these vital areas.